

S.EPIDERMIDIS STRAIN K28 SdrG

FIG. 1

CODING SEQUENCE FOR SdrF - INCLUDES FLANKING SEQUENCES

tattggataaattatgcttataaagtatttacataaaaaatgtaaatgcaatttacaagta
Y W I N Y A Y K V F T - K C K C N L Q V
aatattcaaatatttccttgtaaaatatattttaactggagggtatagtatgaaaaag
N I Q I I S L - N I Y F N W R Y S M K K
agaagacaaggaccaattacaagagagtggaatttctatccaacaaggtaacaagtac
R R Q G P I N K R V D F L S N K V N K Y
tcgattaggaagttcacagtaggtacagcttcaatactcgtgggtgctacgttaatgttt
S I R K F T V G T A S I L V G A T L M F
ggtgccgacagaatgaggctaaaggcgtgaagacaatcaattagaatcagcttcaaaa
G A A D N E A K A A E D N Q L E S A S K
gaagaacagaaaggtagtcgtgataatgaaaactcaaaacttaatcaagtcgatttagac
E E Q K G S R D N E N S K L N Q V D L D
aacggatcacatagttctgagaaaacaacaatgtaaacaatgcaactgaagtataaaaaa
N G S H S S E K T T N V N N A T E V K K
gttgaagcaccacgaagtgacgtatctaaagcctaagtgaagcagtagtgacg
V E A P T T S D V S K P K A N E A V V T
aatgagtcactaaacaaaaacaacagaagcaccactgttaatgaggaatcaatagct
N E S T K P K T T E A P T V N E S I A

FIG. 2

gaaacacccaaacctaactacacaacaagattcgactgagaagaataatccatcttta
E T P K T S T T Q Q D S T E K N N P S L
aagataatttaattcatcctcaacgacatctaaagaagtaaacacagacgaacattct
K D N L N S S S T T S K E S K T D E H S
actaagcaagctcaaatgttactaataataatcaaatcttagacacaaatgactctccaact
T K Q A Q M S T N K S N L D T N D S P T
caaagtgaagaaacttcatacaagcaataacgacagtagacagataatcagtcagcaact
Q S E K T S S Q A N N D S T D N Q S A P
tctaaacaattagattcaaaaccatcagaacaaaagtatatataaaaaatttaatgat
S K Q L D S K P S E Q K V Y K T K F N D
gaacctactcaagatgttgaacacacgacaactaaattaaaaacaccttctgtttcaaca
E P T Q D V E H T T T K L K T P S V S T
gtagttcagtcaatgataagcaagattacacacgaagtgtgtagctagtttaggtgtt
D S S V N D K Q D Y T R S A V A S L G V
gattctaataagaaacagaagcaattacaatgcagtttagagacaatttagatttaaagct
D S N E T E A I T N A V R D N L D L K A
gcatctagagaacaaatcaatgaagcaatcattgtctgaagcactaaaaaagacttttct
A S R E Q I N E A I I A E A L K K D F S
aaccctgattatgggtgcgatacgccatttagctctaaacagatctcaatcaaaaaattca
N P D Y G V D T P L A L N R S Q S K N S

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FIG. 2(cont'd)

ccacataagagtgcacgcacgaatttaataagagtttagctgctgagcctaagtagt
P H K S A S P R M N L M S L A A E P N S
ggtaaaaatgtgaatgataaagttaaaatcacaacccctacgctttcacttaataagagt
G K N V N D K V K I T N P T L S L N K S
aataatcacgctaataacgtaatatggccaacgaagtaacgaacaatttaatttaaagca
N N H A N N V I W P T S N E Q F N L K A
aattatgaattagatgacagcataaaagaggagatacttttactattaagtatggtcag
N Y E L D D S I K E G D T F T I K Y G Q
tatattagacgggtggtttagaaacttcctgcaataaaaactcaactagtagtaaggat
Y I R P G G L E L P A I K T Q L R S K D
ggctctattgtagctaattggtgtatatgataaaaactacaataacgacgacttatacat
G S I V A N G V Y D K T T N T T Y T F

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FIG. 2(cont'd)

actaactatgttgatcaataatcaaaaatatcacaggtagtatttgattttaattgcgacgcct
 T N Y V D Q Y Q N I T G S F D L I A T P
 aagaggaaacagcaattaaaggataatacagaattatcctatggaagtgaogattgctaac
 K R E T A I K D N Q N Y P M E V T I A N
 gaagtagtcaaaaagacttcatgttggtattatggtaataaaaaggacaatacaactaca
 E V V K K D F I V D Y G N K K D N T T
 gcagcggtagcaaatgtggataatgttaataataaacataacgaagttgtttatctaaac
 A A V A N V D N V N N K H N E V V Y L N
 caaataaccaaaaccctaataatgctaataatttctcaacagtaaaaaatggtgaaattt
 Q N N Q N P K Y A K Y F S T V K N G E F 5
 ataccaggtgaagtgaagtttacgaagtgaaggataccaatgcgtagtagacttc 28
 I P G E V K V Y E V T D T N A M V D S F
 aatcctgatttaaatagttctaatgttaaaagatgtgacaagtcaatttgcacctaaagta
 N P D L N S S N V K D V T S Q F A P K V
 agtgcagatgggtactagagttgatatcaattttgctagaagtatggcaaatggtaaaaag
 S A D G T R V D I N F A R S M A N G K K
 tataattgtaactcaagcagtgagaccaacgggaactggaaatgtttataccgaatatgg
 Y I V T Q A V R P T G T G N V Y T E Y W
 ttaacaagagatgggtactaccaatacaaatgatttttacogtggaacgaagtctacaacg
 L T R D G T T N T N D F Y R G T K S T T

FIG. 2(cont'd)

gtgacttatctcaatgggttcttcaacagcacaggggataatactacatatagtcctaggt
 V T Y L N G S S T A Q G D N P T Y S L G
 gactatgtatggtagataaaaaataaacgggtgttcaagatgatgagaaagggttta
 D Y V W L D K N K N G V Q D D D E K G L
 gcagggtgtttatgttactctttaaagacagtaacaatagagaattacaacgtgtaactact
 A G V Y V T L K D S N N R E L Q R V T T
 gatcaatctggacattatcaatttgataatttacaaaaatggaaacgtacacagtcgagttt
 D Q S G H Y Q F D N L Q N G T Y T V E F
 gcgattccctgataattatacgccatctcccgcaataattctacaatgatgcaatagat
 A I P D N Y T P S P A N N S T N D A I D
 tcagatgggtgaacgtgatggtacacgtaaagtagttgttgccaaaggaaacaattaataat
 S D G E R D G T R K V V V A K G T I N N
 gctgataatatgactgtagatactggcttttatttaactcctaataatacgaatgtcggagat
 A D N M T V D T G F Y L T P K Y N V G D
 tatgtatgggaagatacaaaataaagatgggtatcccaagatgacaatgaaaaaggaaatttct
 Y V W E D T N K D G I Q D D N E K G I S
 ggtgttaaagtaacgtttaaaaaataaaatggagatactattggcacaacgacaacagat
 G V K V T L K N K N G D T I G T T T D
 tcaaatggtaaatatgaattcacagggtttagagaacggggattacacaatagaatttgag
 S N G K Y E F T G L E N G D Y T I E F E

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FIG. 2(cont'd)

acgccggaaggctacacaccgactaaacaaaactcgggaagtgaacgaaggtaaagattca
 T P E G Y T P T K Q N S G S D E G K D S
 aacggtagaacaacagtcacagtcacagtcacaagatgcagataataaaacaatagactcaggt
 N G T K T T V T V K D A D N K T I D S G
 ttctacaagccaacatatataacttaggtgactatgtatgggaagatacaaaataaagatggt
 F Y K P T Y N L G D Y V W E D T N K D G
 attcaagacgacagtgaaaaaggatcttctggggttaaagtgaacgttaaaagataaaaat
 I Q D D S E K G I S G V K V T L K D K N
 ggaaatgccattgggacaacgcacaacagacgcaagtggtcattatcaatttaaaggatta
 G N A I G T T T D A S G H Y Q F K G L
 gaaaaatggaagctacacagttgagtttgagacacccatcaggttatacacccgacaaaagcg
 E N G S Y T V E F E T P S G Y T P T K A

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FIG. 2(cont'd)

aattcagggtcaagataataactgtagattccaacgggtataaacaacaacagggtatcatctaac
N S G Q D I T V D S N G I T T G I I N
ggagctgataatctcacaattgatagtggtttctacaaaaaacacccaaaaatatagtgtcgga
G A D N L T I D S G F Y K T P K Y S V G
gattatgtatgggaagatacaaaataaagatgggtatccaagatgacaatgaaaagggaatt
D Y V W E D T N K D G I Q D D N E K G I
tctgggttaaagtaacggttaaaggatgaaaaaggaaataataatgacactacaacaact
S G V K V T L K D E K G N I I S T T T
gatgaaaatgggaagtatcaatttgataatttagatagtggtgtaattacattatcatttt
D E N G K Y Q F D N L D S G N Y I I H F
gagaaaccggaaggcatgactcaaaactacagcaaatctctggaaatgatgatgaaaaagat
E K P E G M T Q T T A N S G N D D E K D
gctgatgggaagatgttcgtgttacgattactgattcatgatgactttagtataagataat
A D G E D V R V T I T D H D D F S I D N
ggttattttgacgatgattcagacagtgactcagacgagatagtgattcagactcagac
G Y F D D D S D S D S D A D S D S D
agtactcggacgcagacagcgattctgacgcagacagtgactcagacgagatagtgat
S D S D A D S D S D A D S D S D A D S D
tctgactcagacagcgactcagacgagatagtgattccgattcagacgagcgactcggat
S D S D S D S D A D S D S D S D S D

FIG. 2(cont'd)

tcagatagtgtatcggatgcagacagcgactcggattctgacagtgattctgacgcagac
 S D S D S D A D S D S D S D S D S D A D
 agtgactcagattcagacagtgactcggattcagacagcgattcggattccgattccagac
 S D S D S D S D S D S D S D S D S D S D
 agtgactcggattcagacagtgactgactcagactccgacagtgattccgattcagatagcgac
 S D S D S D S D S D S D S D S D S D S D
 tccgacgcagatagtgtatcggacgcagacagtgactcagattcagacagtgattccggac
 S D A D S D S D A D S D S D S D S D S D
 gcagacagtgactcggactcagatagtgtattcagatgcagacagcgattcagactcagat
 A D S D S D S D S D S D A D S D S D S D 9 / 28
 agcgactcggattcagacagcgactccgacgcagacagcgactcggattcagatagtgtat
 S D S D S D S D S D A D S D S D S D S D
 tctgactcagacagtgactcagattccgatatgtgtattcggattcagatagtgtattccgac
 S D S D S D S D S D S D S D S D S D S D
 gcagacagcgattcggattccgatatagcgattcagactcagacagcgattcagattccagac
 A D S D S D S D S D S D S D S D S D S D
 agcgactcagattcagatagtgtattccgacgcagacagcgatgcagacagcgactcagac
 S D S D S D S D S D A D S D A D S D S D
 gcagacagtgattcagatgcagacagcgattctgactcagatagtgtactcagacgcagat
 A D S D S D A D S D S D S D S D S D A D

FIG. 2(cont'd)

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agtgattccgattccgatatgcgatttcagatttctgattgactcagactcagacagtgac
S D S D S D S D S D S D S D S D S D
tcagattccgatatgcgactcggatttcagatatgtagtccgacgcagacagtgactcagac
S D S D S D S D S D S D S D A D S D S D
tcagatagtgactcggattccgatatgtagtattccgaocgcagacagcgatttctgactcagat
S D S D S D S D S D S D A D S D S D
agtactcagacgcagatatgtagtattccgatttccgatatgcgatttcggatgcagacagcgac
S D S D A D S D S D S D S D S D A D S D
tcggatttcagatatgtagtattccgaocgcagacagtgactcagactcagatatgtagtactcggat
S D S D S D S D A D S D S D S D S D S D
tccgatatgtagtattccgacgcagacagcgatttcggatttccgatatgcgatttccagactcagac
S D S D S D A D S D S D S D S D S D S D

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FIG. 2(cont'd)

agcattcagattcagacagcgactcagattccgatatgtgattccgatttcagacagtgac
 S D S D S D S D S D S D S D S D S D S D
 tcggattccgatatgtgactcagactcagacagtgactcagattcagatagcgaactcagat
 S D S D S D S D S D S D S D S D S D S D
 tcagacagtgattcggactcagatatgtgactccgatttcagacagtgattcggattccgat
 S D S D S D S D S D S D S D S D S D S D
 agcattcggattccgatatgtgactcggatttcagacagtgattcggactcagacagcgac
 S D S D S D S D S D S D S D S D S D S D
 tccgattcagatatgttccgactcagacagcgattcggattccgatatgtgactcggat
 S D S D S D S D S D S D S D S D S D S D
 tcagacagtgattcggactcagacagcgactccgatttcagatatgtgattccgacgcagac
 S D S D S D S D S D S D S D S D S D A D
 agcgactccgatttcagatatgtgattcggacgcagacagcgattccgatatgtgactcggat
 S D S D S D S D S D A D S D S D S D S D
 tcagacagtgattcggactcagacagcgattccgatttcagacagtgactcggactcagat
 S D S D S D S D S D S D S D S D S D S D
 agcgactccgatttcagacagtgactcggactcagatatgtgactccgatttcagacagcgac
 S D S D S D S D S D S D S D S D S D S D
 tcggattctgataaaaatgcaaaaagataaaattacctgatacaggagcaaatgaagatcat
 S D S D K N A K D K L P D T G A N E D H

FIG. 2(cont'd)

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gattctaaaggcacattacttggaactttatttgcagggttaggagcattattattagga
D S K G T L L G T L F A G L G A L L L G
agacgtcgtaaaaaagataaaagaaaaatagcactatttgattcattcataagttattt
R R R K K D N K E K * H Y - F I H K L F
caagccaggctctatatggccctgggtttgaaatcatattaaattgaaaggagaaaaaatga
Q A R S I W P G L K S Y - I E R R K R -
gtatgg
V W

```

FIG. 2(cont'd)

SdrG coding and flanking sequences.

atattgcaaaaagacttatatactatatattgtattttactctagaaaacgatttttacttgaa

I A K K T Y I L Y C I L L - K R F L L E

aattacattgaaatagtcaaagataaaggagtttttatgatttaaaaaataatttacta

N Y I E I V K D K E F L - L K K N N L L

actaaaaagaaacctatagcaaaataaataccaataaataatgcaattagaaaaattcacagta

T K K K P I A N K S N K Y A I R K F T V

ggtacagcgtctattgttaataggtgcagcattattgttggtttaggtcataatgaggcc

G T A S I V I G A A L L F G L G H N E A

aaagctgaggagaatacagtacaagacgttaaagattcgaatatggatgatgaattatca

K A E E N T V Q D V K D S N M D D E L S

gatagcaatgatcagtcagtaatgaagaaaagaatgatgtaatcaataatagtcagtca

D S N D Q S S N E E K N D V I N N S Q S

ataaacaccgatgatgataaccaataaaaaagaagaaacgaatagcaacgatgccata

I N T D D N Q I K K E E T N S N D A I

gaaaatcgctctaaagataatacacagtcacaacaaatgtagatgaaaaacgaagcaaca

E N R S K D I T Q S T T N V D E N E A T

ttttacaaaagacccctcaagataatactcagcttaaagaagaagtggtaaaagaaccc

F L Q K T P Q D N T Q L K E E V V K E P

tcatcagtcgaatcctcaaattcatcaatggatactgcccaacaaccatctcatacaaca

S S V E S S N S S M D T A Q Q P S H T T

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FIG. 3

ataatagtgaagcatctattcaaaacaagtgaataatgaagaaaattccgcgtatcagat
 I N S E A S I Q T S D N E E N S R V S D
 ttgctaactctaaaataatagagagtaaacactgaatccaataaagaagaataactata
 F A N S K I I E S N T E S N K E E N T I
 gagcaacctaacaagtaagagaagattcaataacaagtcacccgtctagctataaaaat
 E Q P N K V R E D S I T S Q P S S Y K N
 atagatgaaaaaatttcaaatcaagatgagttattaaatttaccataaatgaatatgaa
 I D E K I S N Q D E L L N L P I N E Y E
 aataaggtagaccggttatctacaacatctgccaaaccatcgagtaagcgtgtaaccgta
 N K V R P L S T T S A Q P S S K R V T V
 aatcaattagcggcagaacaagggttcgaatgttaatcatttaataaagttactgatcaa
 N Q L A A E Q G S N V N H L I K V T D Q
 agtattactgaaggatatgatgatgtggtattattaaagcacatgatgctgaaac
 S I T E G Y D D S D G I I K A H D A E N
 ttaatctatgatgtaacttttgaagtagatgataaggtgaaatctggtgatacgatgaca
 L I Y D V T F E V D D K V K S G D T M T
 gtgaatatagataagaatacagttccatcagatttaaccgatagttttgcaatacctaaaa
 V N I D K N T V P S D L T D S F A I P K
 ataaaagataattctggagaaatcatcgctacagggtacttatgacaacacaaataaaca
 I K D N S G E I I A T G T Y D N T N K Q

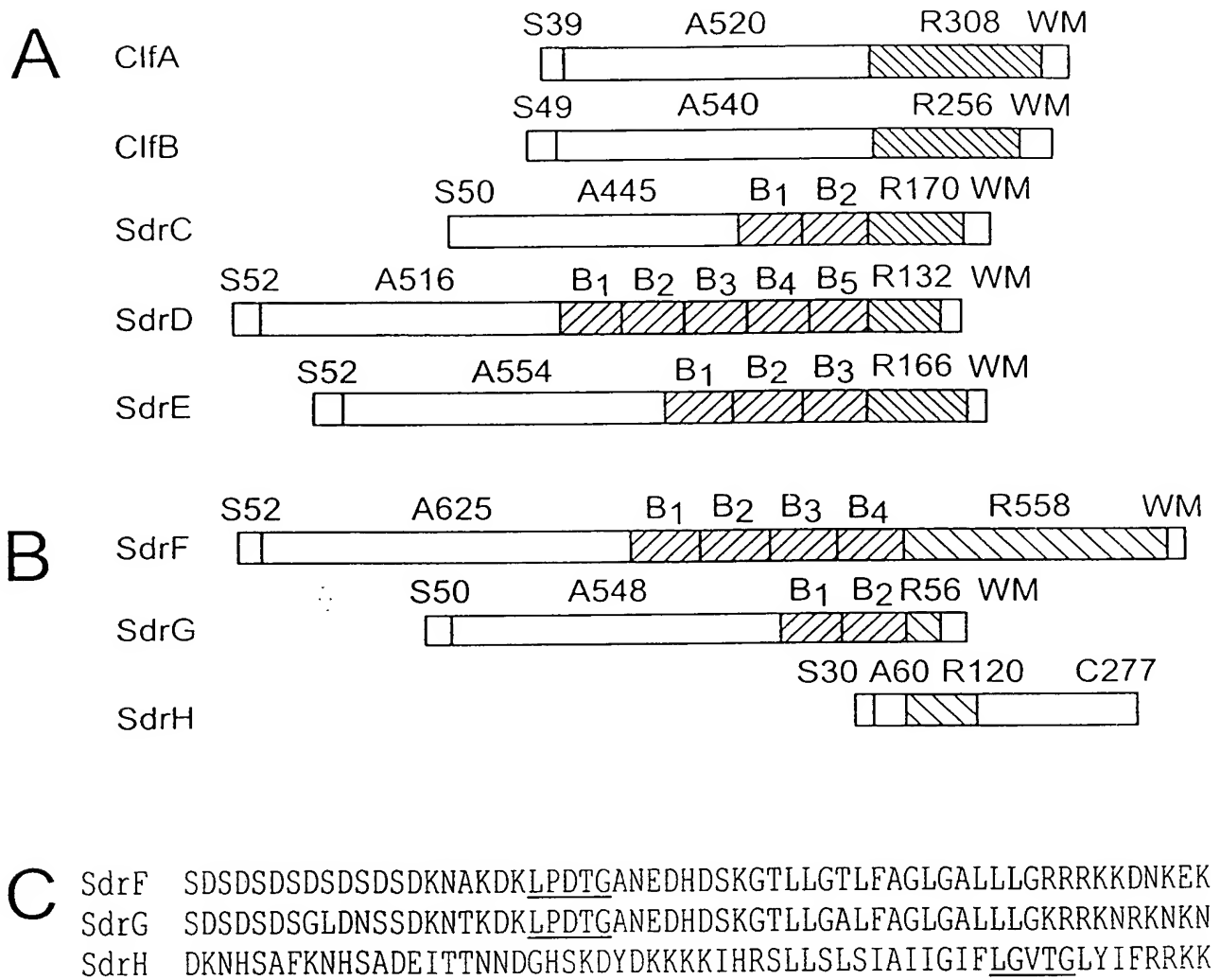
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FIG. 3(cont'd)

attacctacacttttacagattatgtagataaataatgaaaaatatataagcgcaccttaaa
I T Y T F T D Y V D K Y E N I K A H L K
ttaacatcacattgataaaatcaaaagggttccaaataataacactaagttagatgtagaa
L T S Y I D K S K V P N N T K L D V E
tataagacggccctttcatcagtaaaataaaacaattacgggttgaaatatcaaaaacctaac
Y K T A L S S V N K T I T V E Y Q K P N
gaaaatcggactgctaaccttcaaaagtatgttcacaaaacatagatacgaaaaaacataca
E N R T A N L Q S M F T N I D T K N H T
gttgagcaaacgatttatataaccctcttcgttattcagccaagaacaaatgtaaat
V E Q T I Y I N P L R Y S A K E T N V N
atttcaggggaatggcgatgaagggttcaacaattatcgacgatatgatacaatcattaaagtt

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FIG. 3(cont'd)

**FIG. 5**

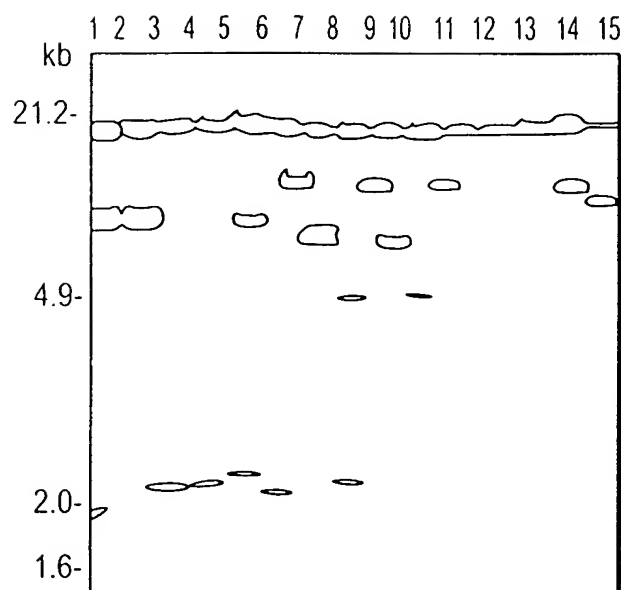


FIG. 6A

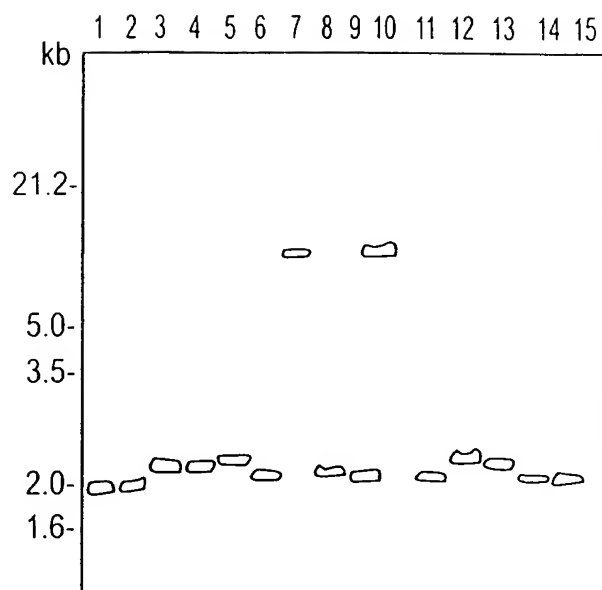


FIG. 6B

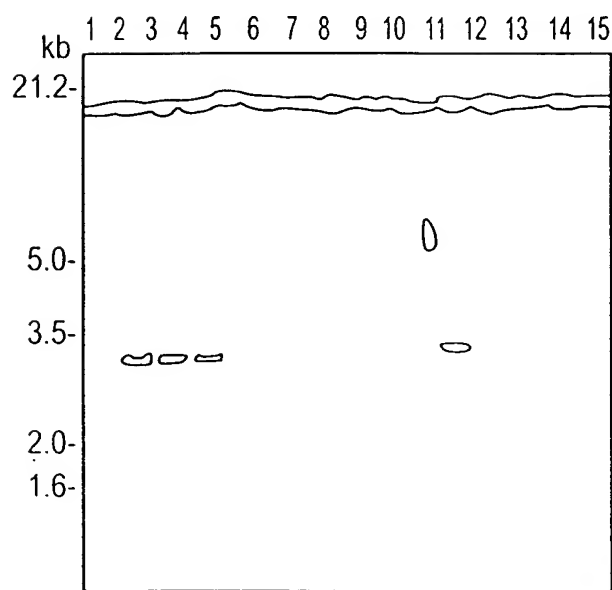


FIG. 6C

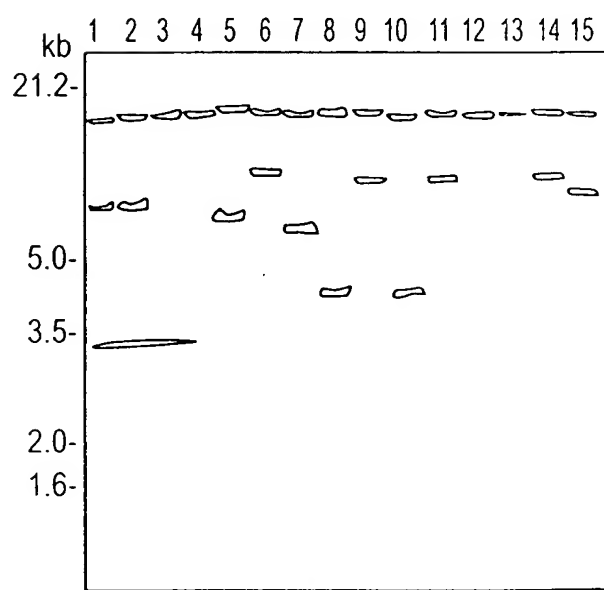


FIG. 6D

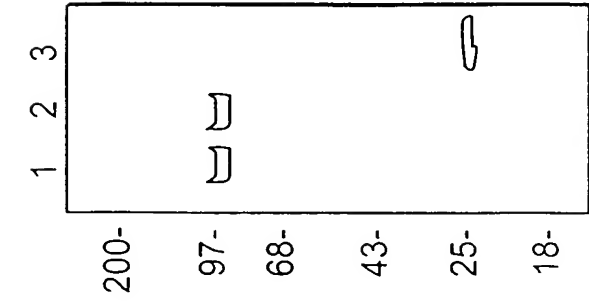


FIG. 7A

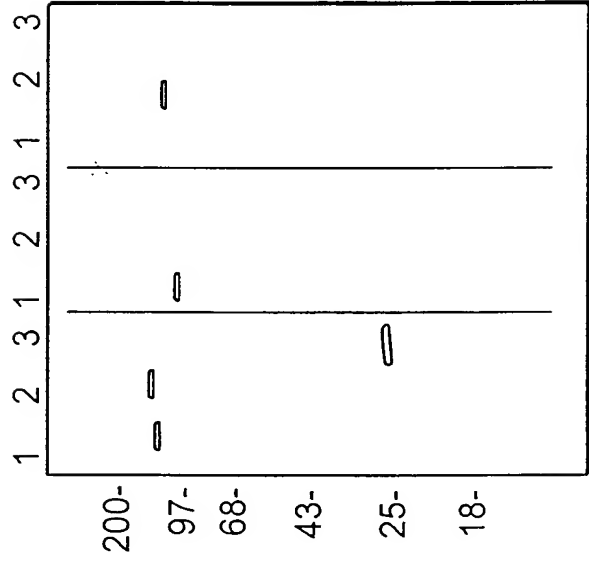


FIG. 7B

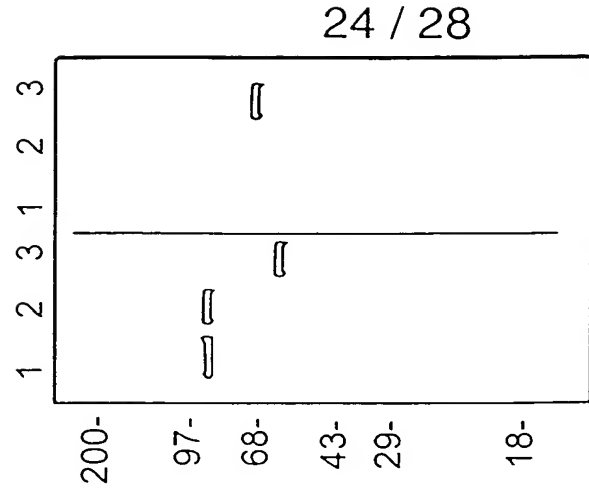


FIG. 7C

1 1

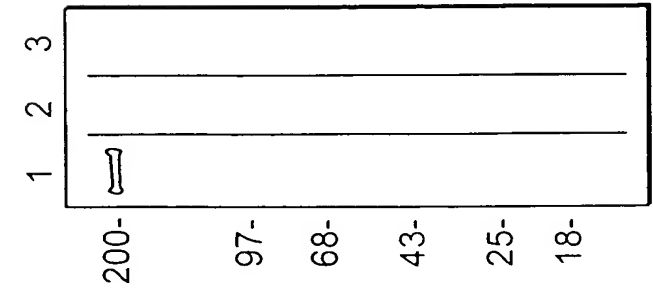


FIG. 8A

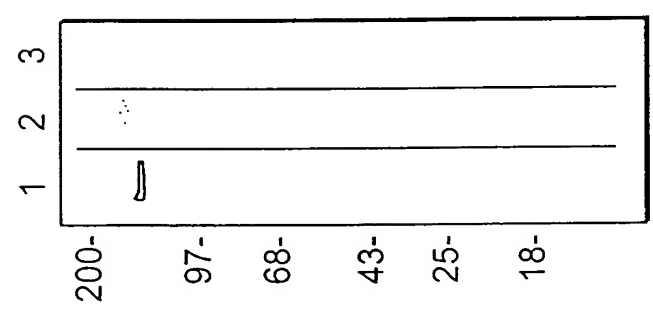


FIG. 8B

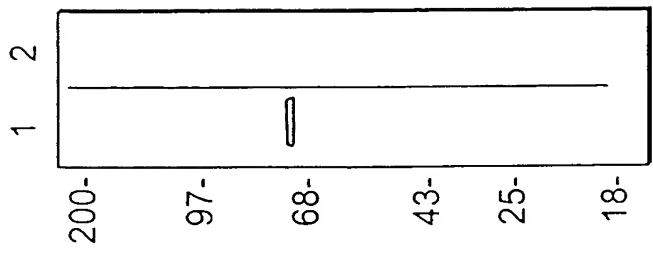


FIG. 8C

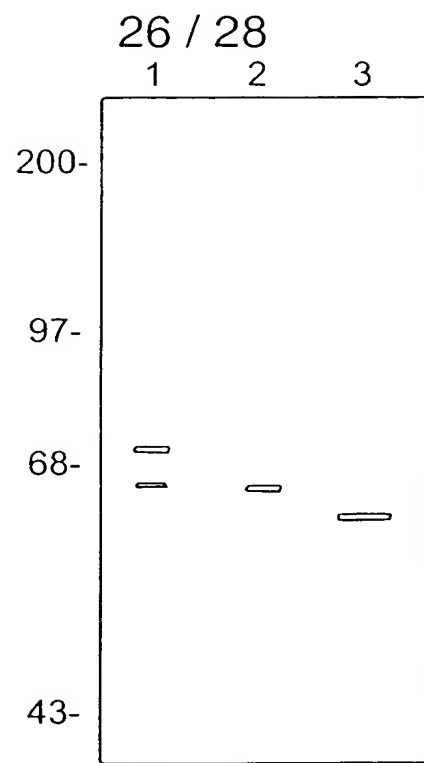


FIG. 9A

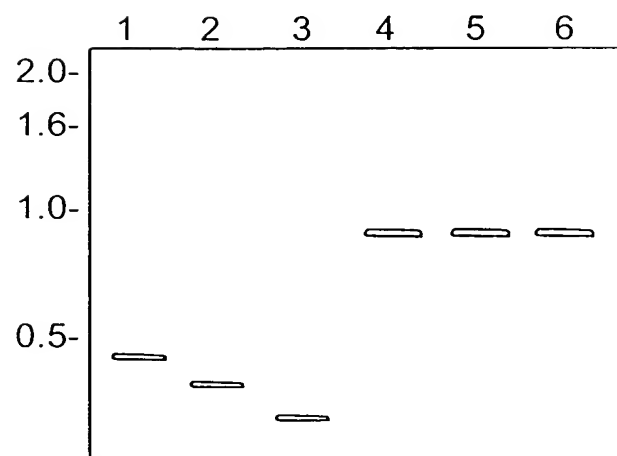


FIG. 9B

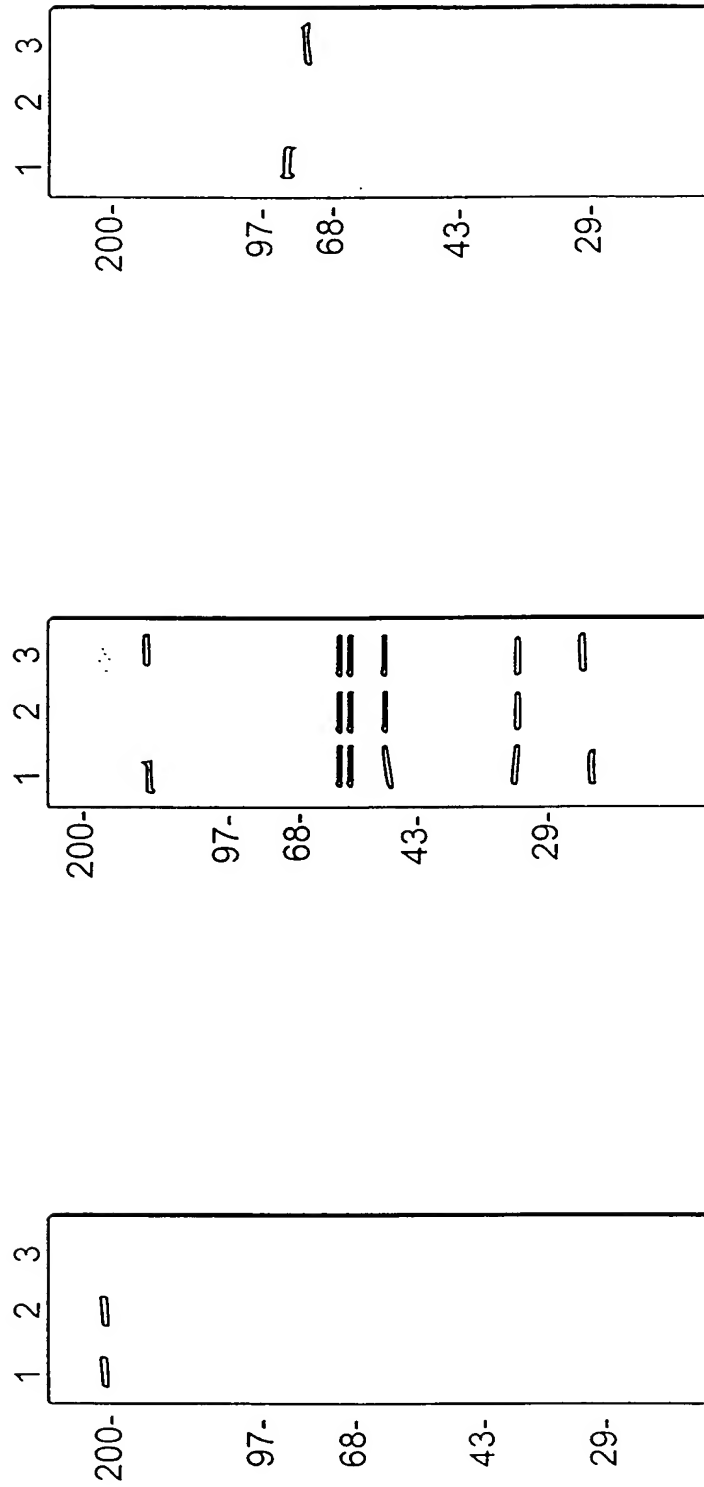


FIG. 10A

FIG. 10B

FIG. 10C

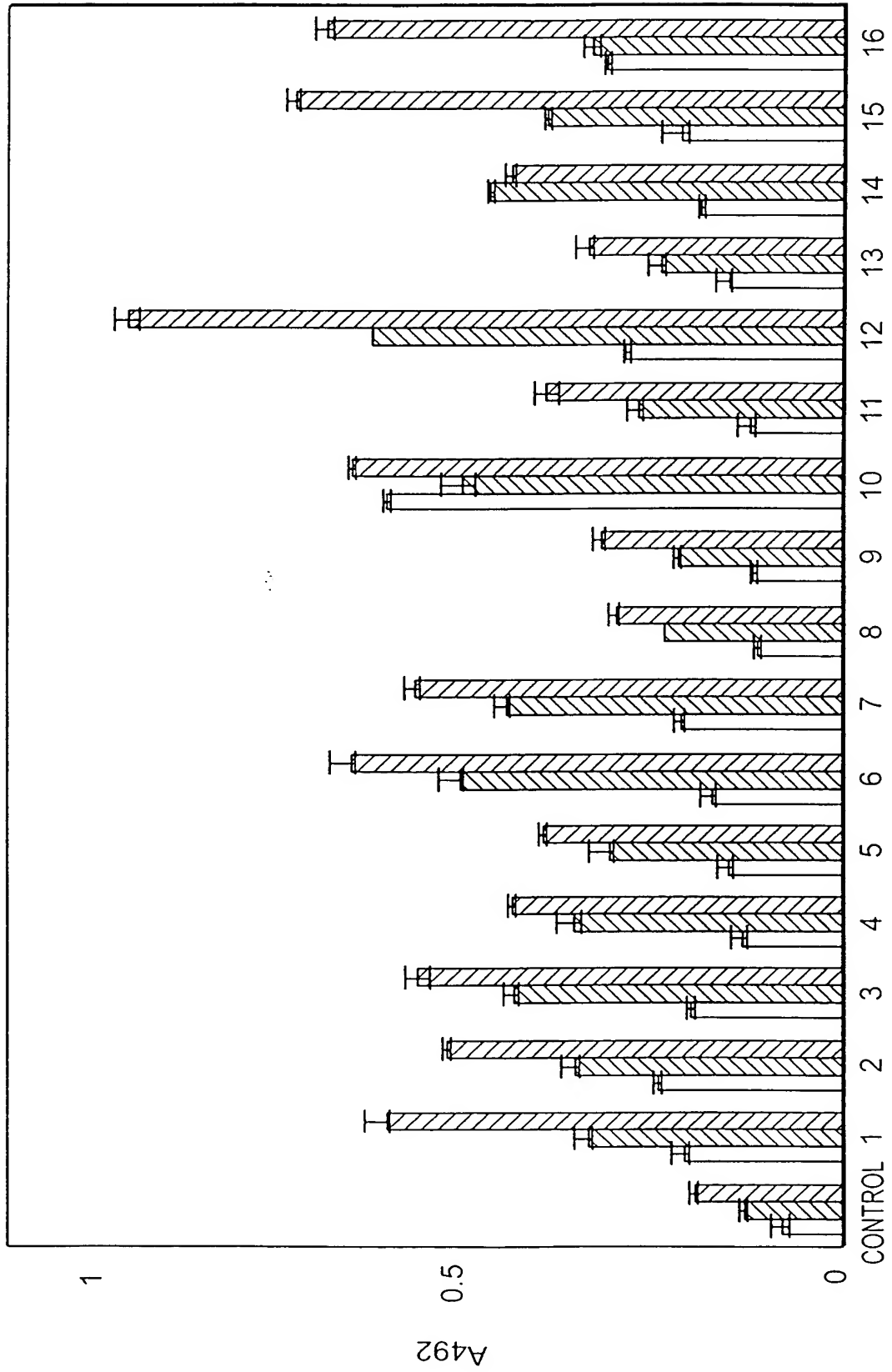


FIG. 11